

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028234**Date Inspected:** 23-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** Berry Drake**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG 13 / 14 West**Summary of Items Observed:**

On this date, Quality Assurance Inspector (QAI) Robert A. DeArmond was present at the San Francisco Oakland Bay Bridge job site at Yerba Buena Island to observe erection and welding activities for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

13WEST**Ultrasonic Testing (UT)**

This QAI inspector performed UT of approximately 10% of the area previously tested and accepted by ABF Quality Control personnel. This QAI Inspector generated an UT report for this date. All components were verbally requested by QC personnel; Mr. Bonifacio Daquinag Jr. The member(s) is/are identified as OBG 13W Floor Beam Web Splice. The weld designations reviewed are as follows

13W-PP122.5-W2.8-BW-1**Ultrasonic Testing (UT)**

During the Quality Assurance Ultrasonic Testing (UT) verification of welds on transverse deck plate splice, 13W-PP121.6 @ 1900mm. This Quality Assurance Inspector (QAI) discovered the following issues:

Y+970

-One class "A" longitudinal indication with a db rating of +7; measuring approximately 20 mm in length with a depth of 11mm. The indication was re-tested by ABF QC personnel Mr. John Hays and found to be rejectable by

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QC. The member(s) is/are identified as OBG 13W SPCM Transverse Deck Plate Splice.

Ultrasonic Testing (UT)

During the Quality Assurance Ultrasonic Testing (UT) verification of the transverse deck plate diaphragm to floor beam welds; 13W-PP122.5-W2.8-BF-1. This Quality Assurance Inspector (QAI) discovered the following issues: Y+1219

-One class "A" longitudinal indication with a db rating of +9; measuring approximately 15 mm in length with a depth of 11mm. The indication was re-tested by ABF QC personnel Mr. Scott Kortum and found to be rejectable by QC. The member(s) is/are identified as OBG 13W SPCM.

Ultrasonic Testing (UT)

During the Quality Assurance Ultrasonic Testing (UT) verification of the transverse deck plate diaphragm to floor beam welds; 13W-PP122.5-W2.8-BF-1. This Quality Assurance Inspector (QAI) discovered the following issues: Y+1270

-One class "A" longitudinal indication with a db rating of +10; measuring approximately 15 mm in length with a depth of 11mm. The indication was re-tested by ABF QC personnel Mr. Scott Kortum and found to be rejectable by QC. The member(s) is/are identified as OBG 13W SPCM Transverse Deck Plate Splice.

SPCM (Critical Weld Repair)

13W-PP120-W2-FBW1-

The QAI observed that welder 5892-Richard Garcia, was welding multi-Pass welds at 13W-PP120-W2-FBW1 (Floor Beam Web Plate) in the horizontal (2G) position. This QAI observed these parameters as defined in Repair Welding Procedure Specification WPS-ABF-WPS-D15-1004-Repair and RWR 201208-074 (2G) at the following locations.

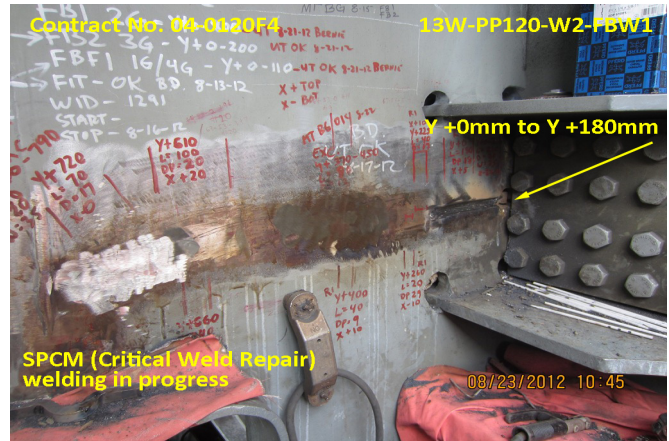
Y+225mm, Y+260mm, Y+610mm

The QC inspector Bernard Docena verified the joint geometry for these locations and found it to be acceptable, this information was relayed to the QAI. The welder then continued Pre-heat throughout the area during welding using a heat blankets at 120 degrees Celsius (250 degrees F) which was verified using a tempilstik and infrared gun by the QC. The welder was using the Shielded Metal Arc Welding (SMAW) electrode E7018 for the Complete Joint Penetration (CJP) weld in the horizontal (2G) position with 3.2 mm electrode with 127 amps. The welder utilized a power grinder and power wire wheel for the interpass cleaning. The QC inspector for this location was Bernard Docena and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time METS observation was performed. No issues were noted by the QAI

The welder was grinding the starts and stops between weld layers to a bright metal as well as performing PWHT. The location was still in process at the end of this QAI's shift.

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Summary of Conversations:

As mentioned above between QA and QC concerning this project

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510 385 5910, who represents the Office of Structural Materials for your project.

Inspected By: DeArmond,Robert

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer